

## CHATTANOOGA PRODUCTS FIGHT WITH EVERY BRANCH OF SERVICE

Mobilization of Local Industry Accomplished Swiftly and Quietly.  
Shells Head List of Exports to Germany—Wide Range of  
Chattanooga Factories Proves of Great Advan-  
tage to the Government.

(By Bruce I. Crabtree.)

One of the thoughts which should be most cheering to every loyal Chattanooga is this—that of the stream of high-explosive messages of correction which go hurtling across the desolation of "no man's land" into the trench of the Hun, many of them carry the label, "Made in Chattanooga."

Before the war with Germany, in that dim, archaic period when the thoughts of the business man were mainly concerned with methods of making money, Chattanooga already had quite a reputation in the export line. Chattanooga products went to nearly every country under the sun. Until the confederation broke loose in Europe, however, Germany had not been among the list of recipients of Chattanooga products. Now, let us be rejoiced, she is receiving steadily the most effective form of sudden death which the skill of Chattanooga labor, the weight of Chattanooga capital and the patriotism of both can combine to fabricate.

Everybody knows Chattanooga is making shells. The glittering of inch-cannons with their shining copper bands, which the Columbian Iron works has been turning out with such cheering speed and efficiency, have been honor features of many of the patriotic parades, and two of them proudly take their place among other Chattanooga products on exhibition at the building of the Chattanooga Manufacturers' association.

Nearly everybody knows Chattanooga is going to make more shells—more shells than was thought possible to produce here. From the street car along Roosevelt avenue may be seen the sign of the Southern Machine works, under which is the simple word "Ordnance," and which is surrounded by a huge American flag. That plant is not quite completed, but when it is completed, and that will be during September, there will be 2,500 workmen in Chattanooga engaged in shell-making alone, and making shells is really but a small part of the contribution of Chattanooga industry to the winning of the war.

The shell, however, possesses the romance which the humbler instrument lacks. It is the epitome of industry turned to warfare, of the plowshare beaten into the sword, of the arts of peace converted to the tasks of making war forever impossible by destruction of the savage devotees of force, and the transition of Chattanooga industry from the ends of peace to the ends of war is perhaps more strikingly typified in the manufacture of shells than of anything else.

Chattanooga Man Designs Shell Machinery.

So it comes as an added gratification to local pride that not only has a Chattanooga firm taken the lead in the manufacture of these packages of persuasion, but a Chattanooga man has made this possible by designing and building the machinery with which to produce them. We must go back a little bit to appreciate this.

How many people are there who remember the time when America was supposed to be neutral in thought and deed? Yet there was a time when a lot of people were putting up the bluff that such a condition was possible. That is the period to which we must go back, somewhere about May, 1916, when German propagandists were having the time of their lives and "watchful waiting" was passing from a slogan to a joke.

A little before that time the Columbian Iron works had been making waterworks machinery, valves, fireplugs, etc. Along came the British government needing shells. The Columbian company undertook to produce them, and H. M. Lofton, general manager of the company, began to assume a larger importance in

the eyes of the city. Rumors began to be heard about remarkable automatic machinery of his design, and they proved true.

As a matter of fact, practically all of the machinery, tools, dies and jigs were designed by Mr. Lofton and then built by the Columbian Iron works before the same company began to make shells. These connections with the machinery trade will remember that time as a period when anything like a lathe or a drill press was being eagerly sought by the allied governments and the big east-Indian manufacturers, and the procurement of these machines elsewhere would have been an enormous undertaking for the iron works.

Then shells began to come out, first for the British government and later, when America quit being neutral, for the American government. And are still coming out as fast as 150 men can produce them.

Ordnance Facilities Will Be Quadrupled Soon.

But the government wanted Chattanooga to produce more shells, and to meet this with the Southern Machine works was incorporated last February. The incorporation and the interests behind the new project were virtually the same as those behind the Columbian Iron works. Morrow Chamberlain is president. Capt. C. A. Lyerly vice-president, H. M. Lofton general manager and W. A. Sedell treasurer.

The immense plant of the Morris Sherman company out on Missionary avenue was acquired and things began to hum. It is hoped to have this plant producing shells very shortly now. Three shifts of men will be worked to secure continuous operation, and somewhere between 1,700 and 2,400 men will be employed in what will then be one of the largest munition plants in the United States.

Making Munitions Invokes Patriotism Among the Workers.

Everybody recognizes that the occupation molds the thoughts of man to a great extent. That was never more clearly shown than in the case of the men who work at the Columbian Iron works. In all of the liberty loan drives, the Red Cross drives, and in every patriotic activity, these men have been among the leaders and have built up an enviable reputation for being 100 percent American and possessed of the same spirit which is making Fritz wary of the American soldier.

Chattanooga Products Run Whole Gamut.

But while shell-making furnishes the most romantic phase of Chattanooga's war industry, it lacks much of being the greater part of it. It is merely the climax, as it were.

When it comes to running down the list of other products the thought inevitably intrudes that Chattanooga is again fortunate in possessing such a variety of industries. For otherwise it is extremely doubtful if the city would have been able to so usefully serve the country by meeting so many needs. Practically every manufacturing concern of any importance whatever in pre-war times was making something which could be turned to war uses, so that in Chattanooga there was a minimum of time lost in changing machinery. The product was merely diverted to war uses, perhaps modified a little to meet newer standards, but in the main unchanged.

All Engaged on War Work.

Practically every factory in Chattanooga is doing war work, either directly or upon sub-contracts. But the extent to which Chattanooga industry is mobilized to win the war may perhaps be better judged when considered this way: In twelve plants of which a survey was made more than 2,000 workmen were engaged in making finished products for

the prosecution of the war. That does not mean working on material which would eventually find its way into the war, such as turning out lumber, or bricks, which will go into cantonments or munition plants, or pig iron, which will go into shells, cannon, etc., but products all ready to be put to use in fighting, transportation, etc. Of course, in the latter category are many Chattanooga concerns, and their work is just as essential and patriotic as the other, but does not lend itself to classification as readily as the former.

Going down the long list of win-the-war products made here, and now helping to lick the Hun, entails in some cases a veil of camouflage, though mostly it is a very thin veil. Manufacturers have caught the censorship habit and are mighty skittish about giving names and figures too. Of course, in the case of the shell manufacturers the public is pretty familiar with what has been and is going on, but with some of the others it is desired that not too much definite detail be given.

Consider Ends, but Not Origins.

So perhaps it would be better to consider what part Chattanooga products are playing in the war from the standpoint of the end and not the origin. And who cares where they came from, so long as they came from Chattanooga and go where they will do the most good?

Some of the Ends Accomplished.

So, taking that viewpoint, it comes with startling effect to consider the number of things Chattanooga products are doing and will do. Perhaps next to munitions interest centers in ships, and it is astonishing how greatly Chattanooga is contributing to that famous bridge to Europe.

Boilers made in Chattanooga will propel many of the vessels being turned out by the shipping board. Engines made here will operate various gears and machines aboard those ships. Chattanooga-made windlasses will hoist the anchors, Chattanooga valves gearing will contribute to the control of the vessels, and various other parts will help to keep the "bridge of ships" standing.

Across that bridge of ships Chattanooga shells will go, perhaps in Chattanooga-made wooden boxes. Local firms have been among the leaders in the manufacture of ammunition boxes since the early days of the war.

But that merely starts the list. Some day, and let us hope it is a near day, Uncle Sam's famous cavalry will get a chance to pursue the Hun across the rugged desolation of their own trenches, to hurry them back through Belgium so fast that they will have no time to kill little children and ravish young girls, and then some thousands of the troops will be riding Chattanooga saddles, guiding their horses with Chattanooga harnesses and Chattanooga harness buckles.

Out at Alton Park all the peaceful elements of coal are extracted and turned to coke and gas. The more restless elements combine benzol, toluol, etc., and in such form are disposed of to emerge again in the savior form of T. N. T. and kindred choice gifts for the reformation of the German, so it is not too much of a strain upon the imagination to think that by some good chance of combination the ammoniac energy lying in the coal in the Chattanooga district may be put into a Chattanooga shell or be used to complete the development of the local export trade to Germany.

List Includes Many Other Products.

But an army must be transported, and with it its supplies. Chattanooga wagons will do their part in this; Chattanooga stores have kept the soldiers warm in their cantonments; Chattanooga smokestacks are going into munition plants; Chattanooga lumber and bricks into a multitude of places serving the national defense directly.

Chattanooga Leads in One Special Material.

In the production of one very essential war product Chattanooga has taken the lead in the entire south. That is ferro-silicon, an imperative ingredient in the manufacture of steel for war purposes. Taking advantage of the continuous hydroelectric power generated at Hale's dam and Ocoee, local industry has been the first in the section to undertake the development of an electrochemical industry, and a local plant is now running to full capacity turning out a high grade of this very essential product.

An item which is of especial interest in the far-flung battle line of Chattanooga industry is that the equipment for one of the large refrigerating establishments now being erected in France is being made by a Chattanooga concern.

Marines Wear Chattanooga Uniforms.

The chances are that some of those marines who made things so hot for the Hun around Chateau Thierry were wearing Chattanooga-made uniforms when they earned the name of "Devil Dog." A Chattanooga concern made a very large order of these uniforms, and another is now shipping leggings by the whole carload.

Wounded Cheered by Local Products.

But the usefulness of Chattanooga's contribution to the "material" of war does not end with the preparation for fighting or in the fighting itself. When the doctors of battle begin to come into the evacuation and base hospitals our wounded will be taken care of, in part at least, with Chattanooga-made articles. The enameling and stamping company in North Chattanooga is making all sorts of metal hospital equipment, instrument trays, operating room equipment, etc., and Chattanooga-made aseptic cotton has already gone to the government in large quantities.

Much Local Material Goes Into Other Plants.

The building of various munition and other plants, the equipment of arsenals, etc., over the country are all activities which have been aided immensely by the contributions of Chattanooga manufacturing concerns, both in the furnishing of special machinery and of unfinished material.

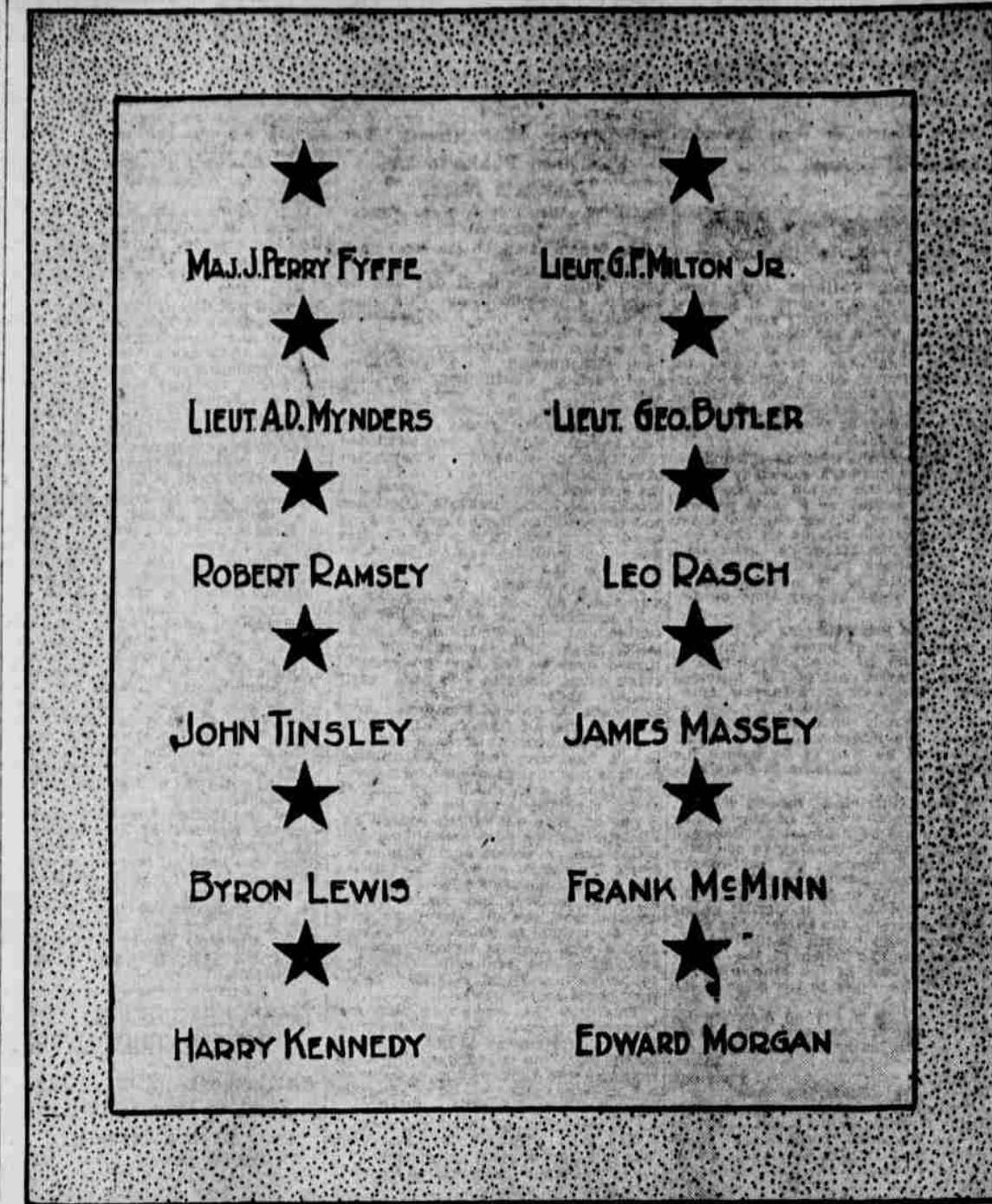
In the first category the invention of another Chattanooga—E. D. Catlin, of the Chattanooga Machinery company—has played a large part. Mr. Catlin is the designer of a line of special key seating and slotting machinery which is finding a wide use in the war.

Such machinery is going to the Rock Island arsenal. It is working for the shipping board making ship propellers fast upon the shafting; it is doing special work in the Lewis gun at various plants; it is working in aviation repair shops in France and elsewhere.

Of course, when it comes to the unfinished material it is a much harder job to visualize the means of products. But Chattanooga-made bricks are making part of the huge project at Muscle Shoals, are going into the powder plant at Nashville and into other plants and camps over the country. Chattanooga lumber has played its part in practically every large project. Chattanooga cast pipe and fittings, though in a measure finished products, might be considered in this classification, and they have contributed to the plumbing and water supply of camps and plants all over the United States.

List Much Larger Than Articles Named.

The conversion of Chattanooga industry to war purposes has been so complete, in so many cases so swift, and so accomplished with a minimum of talk about it, that doubtless the entire list of Chattanooga products which are fighting the good fight extends far beyond the limits anyway and won't be very much put out of the articles mentioned here. Doubt-



### THE NEWS' SERVICE FLAG

A TOAST TO THE FLAG

(By John Daly.)

"Here's to the red of it:  
There's not a thread of it,  
No, nor to the blue of it,  
From foot to head,  
But heroes bled for it,  
Faced steel and lead for it,  
Precious blood shed for it,  
Bathing in red.

"Here's to the white of it:  
Thrilled by the sight of it,  
Who knows the right of it,  
But has felt the might of it,  
Through day and night,  
Womanhood's care for it,  
Made manhood dare for it,  
Purity's dare for it,  
Kept it so white.

"Here's to the blue of it,  
Heavenly view of it,  
Star-spangled hue of it,  
Honesty's due of it,  
Constant and true:  
Here's to the whole of it,  
Stars, stripes and pole of it,  
Here's to the soul of it,  
Red, white and blue."

less many firms doing very important work have not had their products mentioned. But then the chances are that they are hiding their light under a bushel over the omission.

### FOOD PRODUCTION IN HOME SCHOOL GARDENS

School Gardens Have 200 Acres  
Under Intensive and Intelligent Cultivation.

(By Gertrude Wright, City Garden Director.)

Not everyone realizes the work that the United States department of agriculture is accomplishing throughout the country in connection with the state colleges of agriculture. Where co-operation has been secured workers have been placed over the state to promote food production and other home demonstration activities.

Tennessee is one of the leading states in this movement. At the beginning of the war emergency workers were put into the field, and now there are representatives in every city, town, and country in the state, giving the latest messages from the government on food production and food conservation.

The emergency home demonstration work was begun in Chattanooga in November, 1917, as war work. Prior to that time gardening had been taught in the schools as a regular part of the class room work, but no organized plan had been adopted whereby the city at large might be instructed in methods of food production.

Since its advent into the city the work has received the hearty cooperation of the parent-teacher associations, civic leagues and other organizations. The chamber of commerce recognized the wisdom of the government in urging each city to be self-supporting insofar as possible, as a means of winning the war, and appointed a central garden committee to assist in organizing the city into food producing communities. The following were chosen as leaders for the various departments: Mr. Frank Nelson, chairman; Mr. Theodore Montague, finance; Mr. S. B. Strang, seeds; Mr. J. G. Burton, vacant lots; Mr. T. I. Landress, fertilizer; Mr. F. M. Keys, plowing. In addition to this committee each community has been organized with a chairman and two other representatives.

A food production campaign was begun in March with a mass meeting at the chamber of commerce. This was followed by a meeting in each of the school communities, at which timely topics on gardening and poultry raising were discussed. Poultry raising was stressed as the quickest method of producing meat, and the use of eggs as meat substitutes.

As a result many people have been induced to make their first efforts in gardening and poultry raising in order to earn their right to stay at home while friends and relatives are earning their right to be called honored citizens of the United States by fight-

yards and vacant lots are in progress. Owing to the magnitude of the undertaking only a partial report has been obtained, which is as follows:

Acres under cultivation..... 200  
Number gardens planted..... 8000  
Receipts or value of gardens..... 10,000  
Twelve teachers employed by the city department of education are superintending the gardens of the schools.  
As a result of the first efforts to ascertain the extent to which Chattanooga has progressed in her attempts at raising poultry we have the following:  
Number of hens..... 1511  
Number of eggs set..... 1220  
Number of eggs hatched..... 5271  
Number of chickens raised..... 4464  
Pure bred varieties of flocks:  
Leghorns..... 350  
Plymouth Rock..... 200  
Rhode Island Reds..... 150  
Dominiques..... 75  
Pigeons..... 75  
Buff Orpingtons..... 75  
Barred Rocks..... 75  
Bantams..... 75  
The other flocks are mixed, although many of them contain pure bred fowls.

A summer campaign in food production was made in June to encourage the planting of fall gardens. This was also followed by community meetings and by an exhibit at the market house where prizes were awarded, which were donated by the city's business men. The display was of poultry and vegetables. As a means of encouraging summer cultivation of gardens, gardeners have been invited to send their names to the central garden committee for the purpose of having their gardens inspected. Those having the best gardens, those having the best gardens.

Much of the success of the city's garden work has been due to the Eikes club, which made it possible by a liberal donation, to assist in cultivating unused areas which would otherwise have been German gains.

### PROFITEERING COMMITTEE WATCHES WAR PRICES

The profiteering committee of the chamber of commerce early took in hand the problem of prices and has rigidly investigated every accusation of overcharge made since the encampment was established at Chickamauga park. Merchants have co-operated with the committee, so there has been a uniformity of prices charged soldiers and civilians which has done much for the good name of the city.

One of the first matters undertaken by the committee was the regulation of rates in hotels, and an agreement was reached with the hotel managers whereby a schedule of rates for every room in the house was posted conspicuously in the lobby and a copy furnished the chamber of commerce, where it is likewise posted, so that there can be no doubt that the same price is charged everybody alike.

The committee is composed of manufacturers and lawyers, none of whom has a business that is affected in any way by the encampment.

EMMETT S. NEWTON, Manager

M. M. BRYAN, Assl. Manager



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## Pyramid of Progress

PREMIUM INCOME

1911—\$41,058.98

1912—\$75,718.53

1913—\$115,917.61

1914—\$133,442.29

1915—\$198,115.31

1916—\$271,716.30

1917—\$315,866.46

1918—\$400,000.00

(Estimated)

Income, first six months, 1917.... \$143,778.23  
Income, first six months, 1918.... 186,228.44  
Increase..... 29.5%

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